

**BEFORE THE STATE OF WASHINGTON**  
**ENERGY FACILITY SITE EVALUATION COUNCIL**

IN RE APPLICATION NO. 99-1

SUMAS ENERGY 2 GENERATION  
FACILITY

RESPONSE OF INTERVENORS NW  
ENERGY COALITION AND  
WASHINGTON ENVIRONMENTAL  
COUNCIL TO MOTION FOR  
RECONSIDERATION

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**March 29, 2001**

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## **I. INTRODUCTION**

During this proceeding, intervenors NW Energy Coalition and Washington Environmental Council focused on carbon dioxide (CO<sub>2</sub>) emissions mitigation and energy policy. In its Motion for Reconsideration of Council Order No. 755, the Applicant (SE2) proposed various conditions for the project, memorialized in a new draft Site Certification Agreement (SCA). Some of those conditions relate to mitigation of greenhouse gas emissions and energy policy issues, including use of backup fuel oil and guaranteed long-term contracts. The Applicant's revised proposal is a step in the right direction, but it still fails to adequately address mitigation of greenhouse gas emissions and aspects of energy policy that support the Council's decision to recommend against permitting this facility. We do not believe new evidence concerning these issues is necessary.

## **II. THE APPLICANT'S PROPOSAL FOR MITIGATION OF CO<sub>2</sub> EMISSIONS RECOGNIZES THE IMPORTANCE OF EMISSIONS REDUCTION BUT IS STILL INSUFFICIENT**

In Order No. 754, the Council recommended against the Applicant's proposed power plant because "the significant environmental and social costs of the facility, if located at the site proposed, outweigh the resulting energy benefits it would provide only to the most competitive bidders in the wholesale markets of the Western states power grid." (Order, p. 1) Specifically regarding greenhouse gas (GHG) emissions, the Council concluded that "SE2's proposed GHG Offset Plan fails to satisfy its general and specific obligations under governing law," contributing to the Council's decision to recommend against site certification. (Order, p. 38-39)

In its Motion for Reconsideration, the Applicant offers to comply with the functional equivalent of Oregon's greenhouse gas program monetary path payment requirement. (Motion, p. 19) The Applicant's willingness to take a solid step in the right direction is positive.

Although we support the proposal to provide funds for mitigation of greenhouse gas emissions to the Oregon Climate Trust or a similar organization, we do not believe that the Applicant's proposal actually will achieve even a 17 percent reduction in emissions. Current credible CO2 mitigation and offset projects are in the range of \$1-5 per ton, not 57 cents/ton as required in the 1997 Oregon statute. (Exh. 121, p. 16, West) If the Council decides to reconsider its unanimous recommendation to disapprove a permit for the proposed facility, full mitigation of CO2 emissions should be one of the conditions included in a new order.

**A. The Council Did Not Indicate What Would Be Considered Adequate Mitigation of CO2 Emissions from the Proposed Facility**

Because Order No. 754 recommends denial of the site certification agreement, the Council did not "analyze and determine in detail what precise [greenhouse gas emissions mitigation] standards the project would be required to meet as a condition of site certification" (Order, p. 38). Therefore, the Council provided no indication in this Order of what would be considered an acceptable and sufficient proposal for mitigating greenhouse gas emissions.

**B. Precedent Exists for the Council to Require Full Mitigation of CO2 Emissions**

As the Applicant points out, the Council's order in the Chehalis natural gas power plant proceeding requires the developer to offset greenhouse gas emissions. (Motion, p. 20) The Council recommended in 1996 and the Governor approved in 1997 a site certification agreement for a 460 MW facility in Chehalis. The amended permit, signed this year by Governor Locke, increases the generation capacity to 520 MW (Order 753, p. 15) and requires the developer to "completely offset the total increase (8%) in greenhouse gas emissions that will result." (Order 753, p. 28)

According to Order 753 (p. 27),

The Council does not find that the evidence precludes us from imposing any mitigation requirements for greenhouse gas emissions. The evidence is undisputed that the facility as originally certificated would emit 1.8 million tons of CO<sub>2</sub> per year and that the proposed amendments will result in an increase in emissions of approximately eight percent. As stated above, the lack of a state or federal regulation does not preclude us from requiring mitigation for the impacts of the facility. Although the impacts may be global, the emissions that cause the impacts are identifiable, quantifiable, and local, and the impacts are felt locally. We can act locally. While it would be preferable to have national and state standards, mitigation of greenhouse gas emissions must start somewhere and the Council has the authority to address these impacts now.

The Council required full mitigation of the additional CO<sub>2</sub> emissions that would be produced by the Chehalis plant due to the increased capacity of that facility. In comparison, the proposed Sumas facility can be considered a 100% expansion, and thus should be required to offset 100% of its CO<sub>2</sub> emissions.

### **C. The Council Should Require Full Mitigation of CO<sub>2</sub> Emissions**

Full mitigation of CO<sub>2</sub> emissions based on a portfolio approach is appropriate, substantiated by the record (see for example Tr., p. 2090- 2093, Gammon; Exh. 120, p. 13, Hirsh; Exh. 121, p. 16-17, West; Tr., p. 2377, Smith; Tr., p. 1977, Hirsh), and within EFSEC's legal authority to require in a site certification agreement (Order, p. 38-39). Further, EFSEC set a precedent for full mitigation of CO<sub>2</sub> emissions in its Order pertaining to the incremental expansion of the Chehalis power plant.

Fully mitigating CO<sub>2</sub> emissions is reasonable from an economic standpoint when the costs are compared with the total capital costs of the proposed facility (NVEC/WEC Post-Hearing Brief, p. 11). Further, the record and empirical evidence suggest that a requirement for full mitigation of CO<sub>2</sub> emissions should not jeopardize financing this project, and such a

requirement may provide the Applicant with a competitive advantage over other power plant operators in the region. (NWECE/WEC Post-Hearing Brief, p. 6-8)

The Applicant's greenhouse gas offset strategic plan (p. 2-1) calculates the expected CO<sub>2</sub> emissions from the originally proposed facility operating on natural gas 350 days/year and backup oil 15 days/year at approximately 2.4 million tons/year CO<sub>2</sub> [(((107 tons/hr/turbine\*2 gas turbines) + (.25)(107 tons/hr/turbine\*2 turbines)) \* 24 hrs/day \* 350 days/year + (284 tons/hr from oil)(24 hrs/day)(15 days/year)] = 2.353 million tons/year.] Eliminating the use of backup fuel oil (Motion, p. 11) would slightly decrease the amount of CO<sub>2</sub> emissions that would be produced by the proposed facility to 2.347 million tons/year, although that number would need to be corrected for high heat value (Exh. 121, p. 10-11, West). These numbers assume 100% load and capacity factors, as is the practice under Oregon's standard for base load facilities that do not stipulate to a lower production rate (Exh. 121, p. 5-7, West).

The record does not clearly state the total expected CO<sub>2</sub> emissions from the facility given an assumed 30-year life, 100% load and capacity factors, use of the high heat value, and elimination of the backup fuel system, but that number is probably in the vicinity of 70,000,000 tons of CO<sub>2</sub> and the calculation should be relatively straightforward (See Exh. 121, p. 12-13, West - note that his calculation does not account for removal of backup oil or use of 100% production rate.) The record also does not clearly state the amount of money that would be required to fully mitigate those emissions, given the assumptions listed above. Testimony from an expert in the field of CO<sub>2</sub> emissions mitigation indicates that the Applicant would invest approximately \$35 million to fully mitigate or offset the CO<sub>2</sub> emissions from the originally proposed facility at an average 82.4% production rate (i.e., 85% load factor, 97% capacity factor) and payment of 57 cents per ton CO<sub>2</sub>. (Exh. 121, p. 16, West) The evidence also shows that

assuming a baseload plant operates 100% of the time makes sense because it avoids any restrictions on actual operating rates and avoids gaming. (Exh. 121, p. 5, West) Further, most credible CO<sub>2</sub> mitigation and offset projects are in the range of \$1-5 per ton. (Exh. 121, p. 16, West)

The record also indicates that CO<sub>2</sub> mitigation should be pursued immediately, during the construction phase of a new fossil fuel power plant. Identifying and negotiating mitigation and offset projects requires time. Substantial lag time may occur between contractual commitments for offsets and actual emissions reduction. Requiring the Applicant to begin the process immediately will help ensure a closer alignment of the timing of emissions offsets with the actual emissions produced by the facility. (Tr., p. 2218-2219, West)

**D. If the Council Decides to Reconsider Its Previous Recommendation, It Should Require Full Mitigation of CO<sub>2</sub> Emissions in an Amended SCA**

In Order 753 (p. 28), the Council required Chehalis Power to submit a plan within one year for offsetting CO<sub>2</sub> emissions and other greenhouse gases. Chehalis Power will implement the plan following review and approval by the Council. In its Motion for Reconsideration (p. 20), the Applicant stated a preference for contributing funds to a qualifying organization to secure CO<sub>2</sub> emissions offsets rather than directly achieving offsets. Given that preference, we recommend inclusion of the following language in an amended site certification agreement, if the Council decides to reconsider its previous recommendation to disapprove this facility.

1. The Applicant will fully mitigate or offset CO<sub>2</sub> emissions from the facility by providing five equal payments over five years to a qualifying 501(c)(3) organization in the Pacific Northwest that invests in greenhouse gas mitigation projects. The estimated CO<sub>2</sub> emissions from the facility will be based on 100% load and capacity factors, the high heat value for the

facility, and an assumed 30-year life of the plant. The payment will be calculated based on the current average cost of purchasing one ton of CO<sub>2</sub> offset plus 5% for administration.

Following a public hearing, the Council will determine the appropriate average cost of purchasing one ton of CO<sub>2</sub> as well as qualifying organizations that invest in greenhouse gas mitigation projects.

2. The Applicant shall submit to EFSEC prior to beginning facility construction the amount of CO<sub>2</sub> emissions that will need to be mitigated or offset based on a requirement for full mitigation of these emissions, 100% load and capacity factors for the plant and the high heat value for the facility. Upon review and approval from EFSEC, the Applicant can rely on that number to determine its obligation under condition #1.
3. The Applicant shall report to EFSEC by the end of the facility construction period on compliance with condition #1. The facility cannot begin operations until compliance is demonstrated.
4. The Applicant shall make best efforts to ensure that the funds provided to a qualifying organization for offsetting CO<sub>2</sub> emissions will be used for a portfolio of projects, including but not limited to energy efficiency, renewable energy resources, transportation, research and sequestration. Combined, sequestration and research that will lead to verifiable offsets should be limited to no more than 20% of total expenditures. At least 40% of funds shall be spent on projects in the Pacific Northwest.

In accordance with WAC 463.47.110 (2)(b)(ii), EFSEC should not reconsider its recommended disapproval of this facility unless full mitigation of CO<sub>2</sub> emissions is guaranteed as one of the conditions for a site certificate agreement.

### **III. THE APPLICANT’S PROPOSALS RELATED TO ENERGY POLICY REQUIRE ADDITIONAL ELEMENTS**

The post-hearing brief of NW Energy Coalition and Washington Environmental Council focused on the following key energy policy considerations: cumulative impacts, build window, use of backup fuel oil, need and consistency provisions, and facility configuration.

#### **A. The Applicant’s Motion for Reconsideration Does Not Address the Need for a Cumulative Impacts Analysis**

As recommended in our post-hearing brief (p. 13-15), the Council should assess the cumulative environmental and consumer impacts that may result from multiple facilities undergoing construction and starting operations in Washington prior to granting a permit for a proposed new natural gas power plant. The Applicant does not address this recommendation in its Motion for Reconsideration.

#### **B. The Applicant’s Motion for Reconsideration Does Not Address the Need for a Predetermined Build Window**

The new proposed SCA (p. 4) retains the Applicant’s original proposal for a 10-year build window. A build window is the time between the period of issuance of a site certification agreement and the last date that commercial operation of the facility can begin before the permit expires in part or in full. As discussed in our post-hearing brief (p. 15-17), establishing a narrow yet reasonable build window is critical to help ensure certainty and address cumulative impacts. We recommend establishing a build window no longer than four years.

If the Council decides to reconsider its recommendation to disapprove this facility, the site certificate agreement should include the following language:

1. The facility must begin commercial operation as a combined cycle natural gas-fired electric generation facility within four years of final approval of the site certification agreement. The Applicant could apply for a permit extension at the end of that period upon a satisfactory showing that an extension is justified, provided the Applicant demonstrates that no significant environmental or economic changes have occurred during the four year period that should be addressed in a new siting proceeding.

**C. The Applicant's Revised Proposal Addresses Our Concerns Regarding Diesel Back-up Generation**

Although we did not oppose a diesel back-up option for the proposed facility during this proceeding, we support elimination of this option. Our concerns centered on the frequency with which the back-up oil would be used as well as impacts associated with its transportation and use. Those concerns no longer exist if no back-up system is proposed.

**D. The Applicant's Revised Proposal Addresses Our Concerns Regarding Need and Consistency Provisions**

Our post-hearing brief supported the recommendation from the Office of Trade and Economic Development to include need and consistency provisions in a site certification agreement for the proposed facility. These provisions are intended to help ensure some of the output from a facility located in Washington goes to an end-user in the Pacific Northwest, rather than simply being sold to the highest bidder on the open market. If the Council decides to reconsider its recommendation to disapprove the Sumas facility, the need and consistency provisions should be included in the site certificate agreement, as proposed by the Applicant in its Motion for Reconsideration (p. 8-9).

## **E. The Applicant's Revised Proposal Addresses Our Concerns Regarding the Final Configuration of the Facility as a Combined Cycle Plant**

If EFSEC reconsiders its recommended disapproval of the proposed facility, the final site certification agreement should clarify that the approved configuration is a combined cycle combustion turbine not a single cycle facility (NWE/WEC Post-Hearing Brief, p. 17-18). The Applicant's new proposed draft site certification agreement states (p. 4), "The S2GF shall operate only in its combined-cycle combustion configuration." Further, the Applicant proposes modifying language regarding discontinuation of construction for an 18-month period (March 4, 2001 Draft SCA, p. 13-14). These language changes address our concerns.

## **IV. THE RECORD IS SUFFICIENT TO ADDRESS OUR AREAS OF CONCERN**

In Posthearing Order No. 4, the Council asked intervenors to state whether new evidence is necessary as a result of the Applicant's motion for reconsideration. We do not believe new evidence is necessary regarding mitigation of greenhouse gas emissions or the energy policy issues we have addressed in this filing.

## **V. CONCLUSION**

Our response to the Applicant's Motion for Reconsideration focuses on the same issues we have addressed throughout this proceeding: the Applicant's failure to adequately mitigate greenhouse gas emissions and to demonstrate that this project makes sense as part of the state's overall energy policy. Although we would have preferred the Applicant to include some of the newly proposed measures earlier in this proceeding, we are pleased to see movement in the right direction. As discussed above, and for the reasons set forth in our post-hearing brief and the Council's Order, the Applicant should be required to fully mitigate the CO<sub>2</sub> emissions from the proposed facility. The Applicant also should be required to address the cumulative impacts

associated with this project. The Council's legal mandate to protect the public interest, environment and future generations requires no less.

DATED: March 29, 2001

By: \_\_\_\_\_

Roger Leed

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